ORIGINAL

EX PARTE OR LATE FILED



January 16, 2001

**BY HAND DELIVERY**

Magalie Roman Salas, Secretary
Federal Communications Commission
The Portals, 445 Twelfth Street, S.W.
Washington, D.C. 20554

**Re: DIRECTV, Inc.; File No. 0094-EX-ST-1999; ET Docket No. 98-206; DA 99-494; EX PARTE**

Dear Ms. Salas:

Pursuant to Section 1012, the Prevention of Interference to Direct Broadcast Satellite Services provision of H.R. 5548, as enacted by H.R. 4942, the District of Columbia Appropriations Act of 2001, the Commission is required to provide for an independent technical demonstration of any terrestrial service, such as the recently-proposed Multichannel Video and Data Distribution Service ("MVDDS"), that is proposed to share spectrum with the Direct Broadcast Satellite ("DBS") service.

As the Commission considers how to proceed in conducting the required tests, DIRECTV, Inc. ("DIRECTV") and EchoStar Satellite Corporation ("EchoStar") hereby submit the attached outline of points that should inform the structuring of such interference testing. Such testing could have a number of benefits, including better characterization of MVDDS interference zones under a variety of conditions, and the provision of additional data to explore whether proposed MVDDS providers, such as Northpoint Technology, Ltd., can provide their stated signal levels for defined coverage areas without resorting to transmit power levels higher than they have currently specified.

In addition, DIRECTV and EchoStar note that their engineers already have significant relevant field experience in conducting the required tests. Thus, DIRECTV and EchoStar also hereby request a "kickoff" meeting to meet jointly with Commission staff and all proponents of new terrestrial services in the DBS downlink band as soon as possible to discuss further the testing methodology and procedures to be used.

Please do not hesitate to contact the undersigned with any questions.

Respectfully submitted,

Gary M. Epstein
James H. Barker
Kimberly S. Reindl
LATHAM & WATKINS
1001 Pennsylvania Avenue, N.W.
Suite 1300
Washington, D.C. 20004
(202) 637-2200

Counsel for DIRECTV, Inc.

Pantelis Michalopoulos
STEPTOE & JOHNSON
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036
(202) 429-3900

Counsel for Echostar Satellite Corp.

Enclosure

# MVDDS Test Plan

## Possible Test Sites

- Use Washington, DC area

  Given that Northpoint and DBS operators have each conducted tests in the Washington, DC area, continuation of testing and data gathering in this vicinity is logical, and enables more participation/monitoring by Commission staff.

- Oxon Hill, Maryland

  This is a useful site proposed by Northpoint from which DIRECTV and EchoStar conducted interference tests. *See* DIRECTV and EchoStar, "Report of Interference Impact on DBS Systems from Northpoint Transmitter Operating at Oxon Hill, MD, May 22 to June 7, 2000" (July 25, 2000). The coordinates of the measurement sites are as follows:

| Site # | Satellite | Lat. | Long. |
|---|---|---|---|
| 1 | 110 | 38 48 06.9 | 76 58 39.1 |
| 5 | 61.5 | 38 48 16.2 | 76 58 25.1 |
| 9 | 101 | 38 48 09.9 | 76 58 35.6 |

- Collecting data from multiple Northpoint-proposed sites is essential. Tests should be performed at proposed Northpoint sites that transmit in a southerly direction in order to more fully characterize the interference into DBS receivers pointing towards the 110 and 119 degree orbit locations. The Commission should also attempt to examine the cumulative coverage and interference effects of multiple MVDDS transmitters.

- Open ground tests

  These do not need to be in performed in the Washington, DC area, and should feature varying antenna heights and transmit angles. Open ground will allow for easier mapping of interference with minimal obstruction.

## Test Conditions

- Testing should feature a baseline MVDDS link supplied by Northpoint. By way of example, a March 2, 1999, Northpoint Technical Annex sets forth the following parameters:
  - 16 km cell size
  - RSSI = -156 dBW/24 MHz
  - PFD = -112.6 dBW/$m^2$
  - Received C/N = 7.9 dB
  - Required C/N = 5.0 dB

- Set up transmit site to achieve Northpoint's stated level of service, which is 99.7% availability.
- Measure/confirm Northpoint signal C/N at edge of cell using spectrum analyzer. Testing should utilize the transmit power level necessary to achieve C/N of 7.9 dB for interference testing. If a DIRECTV or EchoStar formatted signal is used, C/N can also be determined by DBS receiver count, using the calibration curve.
- Testing should be conducted while transmitting both polarizations simultaneously over three transponders. The transponders should be consecutive. For example, the tests should measure interference into transponder 2 while transmitting over transponders 1, 2, and 3. Transmitting over both polarizations simultaneously more accurately represents expected operation.
- Testing should be performed over the entire DBS frequency band (low, mid and high).
- Testing should use a representative set of consumer antennas, not just one.
- Measure interference into DBS systems at 61.5, 101, 110, and 119 degrees, all backlobes that fall in predicted interference zones.
- Test during rain using two identical DBS systems – one shielded from MVDDS interference, one not shielded. Testing should measure outage times during moderate and heavy rain.

## CERTIFICATE OF SERVICE

I, Kimberly S. Reindl, hereby certify that copies of the foregoing Ex Parte Letter and Test Plan were sent this 16th day of January, 2001 by hand delivery to the following:

Commissioner Harold Furchtgott-Roth
Federal Communications Commission
The Portals, Room 8-A302C
445 12th Street, S.W.
Washington, D.C. 20554

Commissioner Susan Ness
Federal Communications Commission
The Portals, Room 8-B115H
445 12th Street, S.W.
Washington, D.C. 20554

Commissioner Michael K. Powell
Federal Communications Commission
The Portals, Room 8-A204C
445 12th Street, S.W.
Washington, D.C. 20554

Commissioner Gloria Tristani
Federal Communications Commission
The Portals, Room 8-C302C
445 12th Street, S.W.
Washington, D.C. 20554

Donald Abelson, Chief
International Bureau
Federal Communications Commission
The Portals
445 12th Street, S.W.
Washington, D.C. 20554

Harry Ng
International Bureau – Satellite &
Radiocommunications Division
Federal Communications Commission
The Portals, Room 6-A688
445 12th Street, S.W.
Washington, D.C. 20554

Bruce Franca, Deputy Chief
Office of Engineering & Technology
Federal Communications Commission
The Portals II, Room 7-C153
445 12th Street, S.W.
Washington, D.C. 20554

Kimberly S. Reindl